

101041,574

8/12/04

Listing of claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-24. (Cancelled)

~~25~~<sup>1</sup> (Previously presented) An isolated antibody or fragment thereof that binds to a protein selected from the group consisting of:

- (a) a protein consisting of amino acid residues from about 116 to about 271 of SEQ ID NO:2;
- (b) a protein consisting of amino acid residues from about 283 to about 308 of SEQ ID NO:2;
- (c) a protein consisting of amino acid residues from about 336 to about 372 of SEQ ID NO:2;
- (d) a protein consisting of amino acid residues from about 393 to about 434 of SEQ ID NO:2;
- (e) a protein consisting of amino acid residues from about 445 to about 559 of SEQ ID NO:2; and
- (f) a protein consisting of amino acid residues from about 571 to about 588 of SEQ ID NO:2.

~~26~~<sup>2</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> that binds protein (a).

~~27~~<sup>3</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>2</sup> that binds protein (b).

~~28~~<sup>4</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>3</sup> that binds protein (c).

~~29~~<sup>5</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>4</sup> that binds protein (d).

~~30~~<sup>6</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>4</sup> that binds protein (e).

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~~31.~~<sup>7</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> that binds protein (f).

~~32.~~ (Cancelled)

~~33.~~<sup>8</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> wherein said protein bound by said antibody or fragment thereof is glycosylated.

~~34.~~<sup>9</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is a human antibody.

~~35.~~<sup>10</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is a polyclonal antibody.

~~36.~~<sup>11</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) an Fab fragment.

~~37.~~<sup>12</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is labeled.

~~38.~~<sup>13</sup> (Currently amended) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is radiolabeled.

~~39.~~<sup>14</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is biotinylated.

~~40.~~ (Cancelled)

~~41.~~<sup>15</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup>, wherein the antibody or fragment thereof agonizes TR9 signaling.

~~42.~~<sup>16</sup> (Previously presented) The antibody or fragment thereof of claim ~~25~~<sup>1</sup> which is fused to a heterologous polypeptide.

<sup>17</sup>  
43. (Previously presented) The antibody or fragment thereof of claim <sup>1</sup>~~25~~ which is attached to a solid support.

<sup>18</sup>  
44. (Previously presented) The antibody or fragment thereof of claim <sup>1</sup>~~25~~ wherein said antibody or fragment thereof binds to said protein in a Western blot.

<sup>19</sup>  
45. (Previously presented) The antibody or fragment thereof of claim <sup>1</sup>~~25~~ wherein said antibody or fragment thereof binds to said protein in an ELISA.

<sup>20</sup>  
46. (Previously presented) An isolated cell that produces the antibody or fragment thereof of claim <sup>1</sup>~~25~~.

<sup>21</sup>  
47. (Previously presented) A hybridoma that produces the antibody or fragment thereof of claim <sup>1</sup>~~25~~.

<sup>22</sup>  
48. (Currently amended) A method of detecting TR9 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim <sup>1</sup>~~25~~; and
- (b) detecting binding of said antibody or fragment thereof to the TR9 protein in the biological sample.

<sup>23</sup>  
49. (Previously presented) The method of claim <sup>22</sup>~~48~~ wherein the antibody or fragment thereof is a polyclonal antibody.

<sup>24</sup>  
50. (Previously presented) An isolated monoclonal antibody or fragment thereof that binds to a protein selected from the group consisting of:

- (a) a protein consisting of amino acid residues from about 116 to about 271 of SEQ ID NO:2;
- (b) a protein consisting of amino acid residues from about 283 to about 308 of SEQ ID NO:2;
- (c) a protein consisting of amino acid residues from about 336 to about 372 of SEQ ID NO:2;
- (d) a protein consisting of amino acid residues from about 393 to about 434 of SEQ ID NO:2;

(e) a protein consisting of amino acid residues from about 445 to about 559 of SEQ ID NO:2; and

(f) a protein consisting of amino acid residues from about 571 to about 588 of SEQ ID NO:2.

~~51.~~<sup>25</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> that binds protein (a).

~~52.~~<sup>26</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> that binds protein (b).

~~53.~~<sup>27</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> that binds protein (c).

~~54.~~<sup>28</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> that binds protein (d).

~~55.~~<sup>29</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> that binds protein (e).

~~56.~~<sup>30</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> that binds protein (f).

~~57.~~ (Cancelled)

~~58.~~<sup>31</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> wherein said protein bound by said antibody or fragment thereof is glycosylated.

~~59.~~<sup>32</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is a human antibody.

~~60.~~<sup>33</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) an Fab fragment.

61. <sup>34</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is labeled.

62. <sup>35</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is radiolabeled

63. <sup>36</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is biotinylated.

64. (Cancelled)

65. <sup>37</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> wherein the antibody or fragment thereof agonizes TR9 signaling.

66. <sup>38</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is fused to a heterologous polypeptide.

67. <sup>39</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> which is attached to a solid support.

68. <sup>40</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> wherein said antibody or fragment thereof binds to said protein in a Western blot.

69. <sup>41</sup> (Previously presented) The antibody or fragment thereof of claim ~~50~~<sup>24</sup> wherein said antibody or fragment thereof binds to said protein in an ELISA.

70. <sup>42</sup> (Previously presented) An isolated cell that produces the antibody or fragment thereof of claim ~~50~~<sup>24</sup>.

71. <sup>43</sup> (Previously presented) A hybridoma that produces the antibody or fragment thereof of claim ~~50~~<sup>24</sup>.

72. <sup>44</sup> (Currently amended) A method of detecting TR9 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim ~~50~~<sup>24</sup>; and

- (b) detecting binding of said antibody or fragment thereof to the TR9 protein in the biological sample.

<sup>45</sup>  
73. (Currently amended) An isolated antibody or fragment thereof that binds to a protein selected from the group consisting of:

- (a) a protein consisting of amino acid residues from about ~~116-156~~ to about 271-311 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (b) a protein consisting of amino acid residues from about ~~283-323~~ to about 308-348 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (c) a protein consisting of amino acid residues from about ~~336-376~~ to about 372-412 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (d) a protein consisting of amino acid residues from about ~~393-433~~ to about 434-474 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (e) a protein consisting of amino acid residues from about ~~445-485~~ to about 559-599 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037; and
- (f) a protein consisting of amino acid residues from about ~~571-611~~ to about 588-628 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037.

<sup>46</sup>  
74. (Previously presented) The antibody or fragment thereof of claim <sup>45</sup>73 that binds protein (a).

<sup>47</sup>  
75. (Previously presented) The antibody or fragment thereof of claim <sup>45</sup>73 that binds protein (b).

<sup>48</sup>  
76. (Previously presented) The antibody or fragment thereof of claim <sup>45</sup>73 that binds protein (c).

<sup>49</sup>  
77. (Previously presented) The antibody or fragment thereof of claim <sup>45</sup>73 that binds protein (d).

~~78.~~<sup>50</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> that binds protein (e).

~~79.~~<sup>51</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> that binds protein (f).

80. (Cancelled)

~~81.~~<sup>52</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> wherein said protein bound by said antibody or fragment thereof is glycosylated.

~~82.~~<sup>53</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is a human antibody.

~~83.~~<sup>54</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is a polyclonal antibody.

~~84.~~<sup>55</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) an Fab fragment.

~~85.~~<sup>56</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is labeled.

~~86.~~<sup>57</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is radiolabeled

~~87.~~<sup>58</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is biotinylated.

88. (Cancelled)

~~89.~~<sup>59</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> wherein the antibody or fragment thereof agonizes TR9 signaling.

90.<sup>60</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is fused to a heterologous polypeptide.

91.<sup>61</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> which is attached to a solid support.

92.<sup>62</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> wherein said antibody or fragment thereof binds to said protein in a Western blot.

93.<sup>63</sup> (Previously presented) The antibody or fragment thereof of claim ~~73~~<sup>45</sup> wherein said antibody or fragment thereof binds to said protein in an ELISA.

94.<sup>64</sup> (Previously presented) An isolated cell that produces the antibody or fragment thereof of claim ~~73~~<sup>45</sup>.

95.<sup>65</sup> (Previously presented) A hybridoma that produces the antibody or fragment thereof of claim ~~73~~<sup>45</sup>.

96.<sup>66</sup> (Currently amended) A method of detecting TR9 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim ~~73~~<sup>45</sup>; and
- (b) detecting binding of said antibody or fragment thereof to the TR9 protein in the biological sample.

97.<sup>67</sup> (Previously presented) The method of claim ~~96~~<sup>66</sup> wherein the antibody or fragment thereof is a polyclonal antibody.

98.<sup>68</sup> (Currently amended) An isolated monoclonal antibody or fragment thereof that binds to a protein selected from the group consisting of:

- (a) a protein consisting of amino acid residues from about ~~116-156~~ to about 271-311 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (b) a protein consisting of amino acid residues from about ~~283-323~~ to about 308-348 of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;



- (c) a protein consisting of amino acid residues from about ~~336-376~~ to about ~~372-412~~ of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (d) a protein consisting of amino acid residues from about ~~393-433~~ to about ~~434-474~~ of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037;
- (e) a protein consisting of amino acid residues from about ~~445-485~~ to about ~~559-599~~ of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037; and
- (f) a protein consisting of amino acid residues from about ~~571-611~~ to about ~~588-628~~ of the amino acid sequence encoded by the cDNA contained in ATCC Deposit Number 209037.

<sup>69</sup>99. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 that binds protein (a).

<sup>70</sup>100. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 that binds protein (b).

<sup>71</sup>101. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 that binds protein (c).

<sup>72</sup>102. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 that binds protein (d).

<sup>73</sup>103. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 that binds protein (e).

<sup>74</sup>104. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 that binds protein (f).

105. (Cancelled)

<sup>75</sup>106. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 wherein said protein bound by said antibody or fragment thereof is glycosylated.

<sup>76</sup>  
107. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is a human antibody.

<sup>77</sup>  
108. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is selected from the group consisting of:

- (a) a chimeric antibody;
- (b) a humanized antibody;
- (c) a single chain antibody; and
- (d) an Fab fragment.

<sup>78</sup>  
109. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is labeled.

<sup>79</sup>  
110. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is radiolabeled.

<sup>80</sup>  
111. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is biotinylated.

112. (Cancelled)

<sup>81</sup>  
113. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98, wherein the antibody or fragment thereof agonizes TR9 signaling.

<sup>82</sup>  
114. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is fused to a heterologous polypeptide.

<sup>83</sup>  
115. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 which is attached to a solid support.

<sup>84</sup>  
116. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 wherein said antibody or fragment thereof binds to said protein in a Western blot.

<sup>85</sup>  
117. (Previously presented) The antibody or fragment thereof of claim <sup>68</sup>98 wherein said antibody or fragment thereof binds to said protein in an ELISA.

118. <sup>86</sup> (Previously presented) An isolated cell that produces the antibody or fragment thereof of claim ~~98~~. <sup>68</sup>

119. <sup>87</sup> (Previously presented) A hybridoma that produces the antibody or fragment thereof of claim ~~98~~. <sup>68</sup>

120. <sup>88</sup> (Currently amended) A method of detecting TR9 protein in a biological sample comprising:

- (a) contacting the biological sample with the antibody or fragment thereof of claim ~~98~~, and <sup>68</sup>
- (b) detecting binding of said antibody or fragment thereof to the TR9 protein in the biological sample.

121-125. (Cancelled)